Claims:

1. A reinforced formed part comprising
a hollow outer formed part and a metal foam filling located within said hollow outer formed , which is made at least partially of metal and a metal foam filling located within said hollow external formed part such that said metal foam filling at least partially contacts and fills said hollow external formed part so as to ameliorate the elastic properties of the external formed part as well as is load bearing capacity and resistance to deformation, said metal foam filling having a structure having high resistance to deformation, said reinforced formed part being formed by the following steps:
producing a hollow external formed part
providing a metal cellular foam material within said hollow external formed part; and
simultaneously therewith fixing said cellular metal foam material to at least a part of the hollow external formed part, so that at least part of the foam rests against the external formed part and is connected thereto, at least by being in contact with it and that ist mechanical resistance to deformation is improved.

2. A reinforced part according to claim 1 wherein the hollow external part is produced by an internal high pressure forming process and is then filled with a foam material.

3. A reinforced part according to claim 1 wherein the hollow external formed part is made in part of a polymer, where the external formed part is produced by forming at least a single-layer material by a process selected from the group consisting of casting, thermal forming, blowing and internal high pressure forming, and is then filled with a foam material.

4. A reinforced part according to claim 1 wherein the external formed part further comprises at least one tiered layer running parallel thereto.

5. A reinforced part according to claim 1 wherein the external formed part comprises several tiered layers running parallel to each other, made from different material.

6. A reinforced part according to claim 1 wherein the hollow external formed part is formed by cold forming a material selected from the group consisting of metal, light metal, steel, aluminum, zinc, magnesium, titanium, and alloys thereof.

7- A reinforced part according to claim 1 wherein the external formed part has fiber reinforced materials.

8. A reinforced part according to claim 1 wherein the metal foam is selected from the group consisting of steel, aluminum, and alloys thereof.

9. Process for the production of a formed part according to any of the preceding claims, characterized in that a hollow external formed part is produced by a cold forming process as known per se, and that a foam is prepared within this hollow external formed part by inserting a foamable prefoam part and heating this arrangement to a temperature above about 300 deg. C, so that the foamable part expands to form a metal foam that fills at least partially the hollow of the outer part.
in such a way that the foam body, at least partially rests against the hollow part and is attached within the hollow part by a snug fit .

10. Process according to claim 9, characterized in that the hollow external formed part is, at least, partly made up of metal and is produced by an internal high pressure forming process, and subsequently foamed out by a foamable material.

11. Process according to claim 9, characterized in that the hollow external formed part is made up, at least in part, of a polymer, where the external formed part is produced by forming its at least single-layer material, by a forming process as known per se, such as casting, thermal forming, blowing and internal h high pressure forming and is subsequently foamed with a foam material.

12. Process according to any of the claims 9 to 11, characterized in that when foaming the metal foam in the external formed part an alloy is formed at the boundary between the outer coldformed part and the foam, thus attaching the foam to the outer part.

13. Process according to any of the claims 9 to 12, characterized in that after producing the foam in the external formed part, the foam located in the external formed part and the hollow external formed part are jointly formed.

14. Reinforced formed part according to claim 1, characterized therein, that it is a supporting part in scaffolding, frameworks or in construction, in vehicle building for air, land and water craft and furniture.